

OUR MINING INDUSTRIES.

Lead Zinc and Spar in Crittenden and Livingston Counties, Spar in the Industrial World.

It is a fact not generally known that a lead, zinc, and fluor spar field of wonderful possibilities is being quietly, but rapidly developed in Crittenden and Livingston counties, Ky., and just across the Ohio river in Hardin county, Ill. Although the territory embraced is not known to be so extensive as the Joplin, Mo., field, yet the ores now being mined are much richer than any taken from Joplin, and it is doubtful if nature ever offered the investor or prospector a more peculiar or enticing proposition than is presented in this section. In fact, these three counties constitute a mineral district peculiar to itself, and of which there is no counterpart in America.

The mineral bearing rock of this field is the blue or dove colored limestone, and is of the same geological age and nature as the rich deposits of Joplin and Granby in southwest Missouri; but in the Joplin district the ore is found in stratified or horizontal beds, like coal seams, while here it is found in large vertical fissure veins, which run parallel with, and cross each other, and intricately ramify the whole district. These veins are easily traced for miles by their surface croppings, affording "pay dirt" at the top, and in all shafts opened on them the ores taken out have paid the expense of sinking.

While this Kentucky district differs in the nature of its veins and lodes from all other fields in America, yet it closely resembles the great lead and zinc belts of England, especially the mines of Cardigan, and in the Montgomery shire, where the veins have linear extent of several miles, and show strong seams of fluor spar.

The existence of lead and zinc here has been known for years, and sporadic attempts have been made to open up the field but no systematic prospecting was ever done until about two years ago, when capitalists began to mine for fluor spar on a large scale. This deeper mining has demonstrated the presence of lead and zinc in association with fluor spar in unlimited quantity, and throughout the whole district. The veins vary in width from five to twenty feet, and from wall to wall are filled with lead, zinc, and fluor spar.

Average assays of the veins show them to carry 40 per cent. zinc, 25 per cent. lead, and 34 per cent. fluor spar. All these minerals having a ready market, there is, therefore, no waste or refuse product taken from the mines. At present market prices, the average ton of ore taken from these mines is \$22, while in the Joplin district it is less than \$3. In that district less than 10 per cent. of the mine output is lead and zinc; the remaining 90 per cent. being tift and limestone, and being worthless goes into the dump pile.

The above figures explain why mining has become the chief industry in this section; and a purchase two months ago, of one hundred acres nine miles from Marion

for \$750, and its sale two weeks since for \$6000 cash, illustrates the confidence capital has in these properties. Work was begun on this land immediately after the sale, and sufficient pay ore has been taken from the shaft every day to cover all expense.

The Fluor Spar Co., of Marion, Ky., Kentucky Fluor Spar Co., of Pittsburg, Pa., operating near Marion, John R. McClain Co., Rosi Clair, Ill., The Eagle Spar Co., of Wheeling, W. V., The Western Tube Co., of Kewanee, Ill., The Consolidated Oil and Gas Co., of Canton, O., operating near Salem, all corporations of ample capital, are hurrying developments on their properties, and securing suitable machinery for handling the ores. The Eagle Co., operating twelve miles from Marion, has its mill nearly completed, and within thirty days will begin crushing and separating ore, of which it already had several thousand tons mined. A few days ago some Louisville parties acquired the Columbia lands, five miles from Marion, consisting of 1000 acres, and now have a large force of men working day and night opening up mines. This property is generally recognized as the best in the territory.

Notable, for more than local reasons, is the fact that until this field was opened up this country drew its entire supply of fluor spar from Germany and England, for it is found commercially in the United States only in this locality.

Today all the fluor spar consumed in America, except on the Atlantic coast, is shipped from Marion, Ky., and Rosi Clair, Ill., on the Ohio river. Foreign spar, although inferior in quality, is still sold extensively in seaboard cities, where it is imported as ballast, and admitted free of duty, selling for \$7, per ton. Since freight rates from Marion to New York amount to nearly that sum, domestic spar is denied that market.

Fluor spar or fluoride of calcium is one of the rare occurrences of fluoride compounds in nature, and is used in the manufacture of hydrofluoric acid, and opalescent glass. It is also largely used by enamblers, and in potteries. However it is most valuable as a flux in iron smelting, and in that respect the following extract from the "Age of Steel," fully explains its advantages.

INCREASING USE OF FLUOR SPAR IN METALLURGICAL WORK.

Some time ago Dr. Foehr, a noted German chemist and metallurgist, called attention in an article in the "Chemical Zeitung," to the growing tendency to return to the use of fluor spar as a flux in metallurgical operations. He stated that until the beginning of this century fluor spar was considered indispensable, but was replaced to a large extent by limestone, on account of its being apparently much cheaper. The two fluxes, however, are so different in their action, even when accomplishing some-

what similar results, that no comparison is just when based merely on the relative price per ton.

In the United States fluor spar has probably never been used to the same extent as in England and on the continent, and for this two reasons may be assigned: the lack of information as to its value and the proper manner of using it to obtain good results, and the uncertainty of the supply. This latter cause no longer exists, as extensive and more workable deposits have lately been opened up.

The use of fluor spar in metallurgical work may be considered under four heads: (1) In the Blast Furnace, especially for the products of ferro-silicon and ferro-manganese; (2) In Open-Hearth Steel furnaces, especially with the basic process, to make more fluid the slag, to help carry off phosphorus, and to reduce the sulphur; (3) In the Foundry cupola, to make iron more fluid, permit the use of greater quantities of the lower grades and of scrap and to reduce impurities; (4) In Crucibles in Brass Foundries with the most astonishing results.

In the blast furnace, the smelting of very refractory ores is almost impossible without fluor spar. Dr. Foehr, who has already been quoted, claims that One part of Fluor Spar goes further than Ten parts of limestone.

The demand for fluor spar is rapidly increasing, and the supply is inexhaustible, although limited in America to these three counties.

Another peculiarity of this territory, and one that is instantly noted by every engineer, and investor coming here, is the presence in working quantities of three essentials to iron and steel making, viz: Coking coal, iron ore, and flux or fluor spar. The coal is in the famous Bell or Tradewater, lying ten miles east of Marion, and extensively produced from numerous mines on a vein from four to five feet in thickness. Ten miles southwest of Marion is a belt of brown hematite iron ore, extending through Crittenden, Livingston and Lyon counties, and around Grand Rivers.

The location of all these raw materials is such close proximity, and in unlimited quantities, traversed by the Illinois Central railroad, and the Ohio and Cumberland rivers, shows at a glance the wonderful possibilities of this field. There is singular, and probably fortunate lack of speculative stock companies. Every company now here seems satisfied with its property, and instead of desiring to sell is purchasing more, and none of it is permitted to remain dormant. Future developments bid fair to make it the richest mining and industrial belt in America.

C. S. NUNN.

TEMPERANCE ADDRESS.

The Inter-Denominational Anti-Saloon League Sends a Speaker Here.

Mr. J. M. Likens, who represents the inter-denominational Anti-saloon League, will lecture at the C. P. church in Marion on Thursday evening, June 21, at 8 o'clock. Miss Jennie Tharp, of Muncie, Ind., accompanies the speaker and will furnish music for the occasion; she is said to be a very fine singer. The lecture is free and everybody is invited.

A yellow, jaundiced skin is a symptom of disordered liver, as is sprague from biliousness retained in the blood, which destroys energy, cheerfulness, strength, vigor, happiness and life. HERBINE will restore the natural function of the liver. Price 60 cents at J. H. Drugg's drugstore.

SCHOOL CENSUS,

Of the County by Districts, as Reported to the County Superintendent

No	Name	No Pupils
1	Dyersburg	167
2	Dona	61
3	Caldwell Springs	97
4	Cockeysville	81
5	Frances	95
6	Box	132
7	Irma	60
8	White Hall	68
9	New Salem	45
10	Owen	70
11	Silham	64
12	Union	55
13	Pleasant Grove	55
14	Deer Creek	79
15	Rose Dale	73
16	Barnett	100
17	Tolu	143
18	Colon	100
19	Glendale	78
20	Blooming Rose	49
21	Chapel Hill	81
22	Olson's Chapel	82
23	Forest Grove	81
24	Oak Grove	59
25	Crooked Creek	63
26	Heath	63
27	Marion	390
28	Piney Fork	55
29	Post Oak	45
30	Oakland	45
31	Weston	71
32	Greens Chapel	45
33	Bells Mines	81
34	Dempsey	45
35	Hdker	82
36	Hoods Creek	67
37	Sugar Grove	45
38	Blowing Springs	100
39	Eaton	67
40	Hoods	100
41	Lamb	55
42	Olive Branch	52
43	Crider	45
44	Copperas Springs	45
45	Stony Point	45
46	Lily Dale	77
47	Lone Star	74
48	Midway	70
49	Princeton	77
50	Siminary	60
51	Albena	52
52	Hebron	100
53	Shady Grove	102
54	Candy Fork	45
55	Applegate	78
56	Jackson	82
57	Fords Ferry	45
58	Geon Springs	63
59	Bethel	58
60	Moore's	45
61	Childress	48
62	Grimes	57
63	Freedom	64
64	Red Top	62
65	Crayneville	90
66	Ditoy	65

Total COLORED DISTRICTS.

A	Tolu	61
B		23
C		22
D	Marion	127
E	Dyersburg	25
F	Piney Fork	23
G		29
H		24
I		24

Total

MORE MONEY

For Kentucky Postmasters—Readjustment of Salaries Completed by the Department.

Washington, June 14.—The annual readjustment of postmasters' salaries has been completed by First Assistant Postmaster General Heath.

By the arrangement the Mayfield postoffice has been advanced from the third to the second class. Increases of \$200 a year have been made in the salaries of the postmasters at Paducah, Frankfort, Fulton and Ludlow.

Increases of \$100 a year have been made in the salaries of postmasters at the following places: Ashland, Campbellsville, Cynthiana, Falmouth, Glasgow, Lawrenceburg, Madisonville, Murray, Maysville, Somerset, Williamsburg, Augusta Carrollton, Earlington, Guthrie, Louisville, Marion, Midway, Owenaboro, Paris, Springfield, Bardonia, Covington, Eminence, Henderson, Morgantown, Orenton, Pineville and Vancaburg.

Curiosities at Paris.

Maud Adam's statue in solid gold, worth \$200,000.

The cosmorama, showing, the earth, sun, moon and stars.

The mareorama, a mimic sea voyage taken on dry land!

An active volcano, with daily eruptions and earthquakes.

The cloud gallery, where visitors walk above the clouds.

Giant telescope that makes the moon look only a mile off.

A sea beach with salt water pumped from the ocean 125 miles away.

A trip in a shell, in which you are fired from a real mortar gun.

A fairy place under the river Seine, with mermaids and the Lorelei.

Palace in the sky, a huge house-shaped airship that rises 200 feet.

The bottom of the ocean, with a sunken ship and strange submarine life.

A Japanese temple and oriental garden, with dancing geisha girls from Tokio.

Electric ships on the river Seine that will go at the rate of fifty miles an hour.

Great "Light of Kimberly" diamond, worth \$2,000,000, Biggest in the world.

Osteopathy as a Profession.

There are many bright men and women who would like to engage in a profession that is not overcrowded and that offers some opportunity for an immediate income. The attention of all such who find themselves adapted to the life of a physician should be called to Osteopathy, as a science which is based upon an accurate knowledge of Anatomy, and as also an art. Its very large percentage of cures is gained by scientific methods which are not practiced by any other school of healing.

The practitioner of Osteopathy finds himself in possession of skill that the world is demanding, and he possesses and for several years will continue to possess, a natural monopoly of this skill. The unique nature of this skill whereby he effects cures in diseases hitherto unsuccessfully treated, and at the same time copes with equal success in diseases curable by other methods, together with the scarcity of men and women possessing the new power of healing, causes Osteopathy to rank first among the professions in respect to pecuniary remuneration.

In point of honor and honorableness, Osteopathy ranks co-equal with the other intellectual professions. From all above causes, Osteopathy is growing rapidly by the constant addition to the ranks of men and women from every walk of life, and especially from the ranks of college men and women. To these Osteopathy offers a wide-open door.

The next class opens the first of Sept. Send for a catalogue and study Osteopathy. Address, Southern School of Osteopathy, (Incorporated) Franklin, Kentucky.

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SUMMER

DRINKS.

And some are not, if you want the

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Refreshing,

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Cold Drinks,

Come to my fountain

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